CLAIMS

We claim:

1. A method for transitioning from a first data networking protocol using an air/ground network and a ground/ground network to a second data networking protocol using an end-to-end network, the method comprising:

(a) installing a new application gateway on an aircraft, the new application gateway emulating said air/ground network as perceived by onboard equipment on the aircraft and providing an application gateway for said ground/ground network while also providing a link between the onboard equipment and the end-to-end network, allowing said air/ground network and ground/ground network to be bypassed in favor of said end-to-end network; and

b) implementing a transition in first, second, and third stages, wherein the first stage uses the first air/ground network and ground/ground network, the second stage is a hybrid networking architecture wherein aeronautical air/ground data may be routed through the air/ground network and the ground/ground network or through the end-to-end network, and the third stage is a networking architecture characterized solely by use of the end-to-end network providing service from the aircraft to customer premises on the ground.

2. The method of claim 1, wherein connectivity to the air/ground network and ground/ground network is retained in the first, second and third stages in order to enhance service availability.

3. The method of claim 2, wherein messages are routed preferentially over the first air/ground network and ground/ground network, or the second end-to-end network, based on policy guidelines specified by a customer.

4. The method of claim 2, further comprising performing a store-and-forward technique, allowing delayed transmission of messages intended for the air/ground network via the end-to-end network, in order to reduce measured usage of the first air/ground network and ground/ground network.

5. The method of claim 1, further comprising converting the new application gateway to interoperate with selected existing onboard equipment.

6. In a user's fleet of aircraft, a method for transitioning fleet operation from a first data networking architecture using an air/ground network and ground/ground network to a second data networking architecture using an end-to-end network, said method occurring over an extended period of time as individual aircraft are suitably equipped, said method comprising the steps of:

(a) installing application gateway and radio equipment on fleet aircraft allowing interoperation with either said first data networking architecture or said second data networking architecture;

(b) demonstrating operationally that the said second data networking architecture achieves desired performance;

(c) adjusting policy guidelines for routing of traffic via said first data networking architecture or said second data networking architecture; and

(d) removing unneeded equipment associated with said first data networking architecture.